



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 : C12N 15/10, 15/85, 15/86, 9/00, 7/01, 5/10		A1	(11) International Publication Number: WO 99/32618 (43) International Publication Date: 1 July 1999 (01.07.99)
(21) International Application Number: PCT/US98/27942		(74) Agent: RAE-VENTER, Barbara; Rae-Venter Law Group, P.C., P.O. Box 60039, Palo Alto, CA 94306 (US).	
(22) International Filing Date: 18 December 1998 (18.12.98)		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).	
(30) Priority Data: 08/995,234 19 December 1997 (19.12.97) US		(71) Applicant (for all designated States except US): STRATA BIOSCIENCES INCORPORATED [US/US]; 850 Marina Village Parkway, Alameda, CA 94501 (US).	(72) Inventors; and (75) Inventors/Applicants (for US only): KECK, James, G. [US/US]; 617 Harbor Colony Court, Redwood City, CA 94065 (US). MOLONY, Jocelyn, M. [US/US]; 18691 West Cavendish Drive, Castro Valley, CA 94552 (US). KUO, Sophia, S. [US/US]; 59 Surrey Street #3, San Francisco, CA 94131 (US).
(63) Related by Continuation (CON) or Continuation-in-Part (CIP) to Earlier Application US 08/995,234 (CIP) Filed on 19 December 1997 (19.12.97)		<p>Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i></p>	

(54) Title: NON-BACTERIAL CLONING IN DELIVERY AND EXPRESSION OF NUCLEIC ACIDS

(57) Abstract

Novel double-stranded DNAs, expression vectors and methods for their use are provided in which the intracellular expression of the double-stranded DNAs alters the phenotype of a cell to determine the function of a gene of interest. The double-stranded DNAs encode a family of catalytic RNAs targeted to the mRNA of a gene of interest. Cleavage of the mRNA results in an altered cell phenotype from which the function of the product encoded by the mRNA is determined. The compositions find use in high-throughput screens to assign gene functions which eliminate the requirement of bacterial cloning.